



Cirugía Española



www.elsevier.es/cirugia

P-448 - SEVERE BACTERIAL SOFT TISSUE INFECTION IN THE CHEST DUE TO *S. PYOGENES*, CASE SERIES

Landero Ascencio, Leonidas Alejandro; Guerrero López, Raul; Pérez Xaus, Marc; Al Ashtar, Wassim; Fernández Planas, Sara; Martínez Guimera, David; Navarro Martínez, Rebeca; Vallverdú Cartie, Helena

Hospital Universitari de Vic, Vic.

Resumen

Introduction: Necrotizing fasciitis (NF) is a severe bacterial soft tissue infection that primarily affects muscle fascia and subcutaneous tissue. In Europe, it has an annual incidence of 3-5 cases per 100,000, with a mortality rate of 10-15% (rising to 38-45% in septic *shock*). Risk factors include hypertension, immunosuppression, diabetes, obesity and trauma. NF commonly occurs in extremities, perineal region (Fournier gangrene) and less frequently in the chest. In monomicrobial cases, *Streptococcus pyogenes* is the most frequently identified. Treatment involves hemodynamic management, intravenous antibiotics, and early surgical debridement; multiple procedures may be necessary. Clinical presentation is nonspecific. Prognosis relies on swift diagnosis and early surgical intervention.

Case reports: We present a case-report of three thoracic NF. Case 1: A 67-year-old woman with cardiovascular comorbidities presented to the emergency room with right shoulder pain following a fall. Diagnosed with a right clavicle fracture, she was discharged the same day with conservative management. Patient returned 24 hours later with decreased consciousness and dyspnea and ecchymotic plaques on the right shoulder and breast. Suspecting septic *shock*, meropenem and linezolid were initiated. Chest CT revealed thickening of the pectoral fascia and subcutaneous tissue trabeculation. Urgent surgical debridement confirmed necrotizing fasciitis of the right pectoralis major muscle with cervical extension. After excision of necrotic tissue, the patient was admitted to the ICU. Progressive ecchymotic zone prompted a second intervention included right mastectomy. Microbiology reported *Streptococcus pyogenes* multisensitive. Negative pressure wound therapy was used after surgeries. Mesh skin graft was performed after 40 days, and discharge followed after 50 days. Case 2: A 38-year-old man, with non-medical history, presented to the emergency room with 3 days of fever and right-sided chest pain. He had a wooden splinter in his right hand. Signs of septic *shock* and erythematous skin over the right pectoral region were evident. Empirical antibiotic treatment began, and chest CT indicated NF of the right pectoralis major fascia. Extensive debridement of right hemithorax, right arm inner side, mastectomy, and axillary lymphadenectomy, were performed. Postoperatively, the patient entered the ICU. Microbiology identified *Streptococcus pyogenes* multisensitive. Negative pressure therapy led to a satisfactory recovery. Skin grafting from the proximal regions of both lower limbs occurred after 48 days of hospitalization, and the patient was discharged after 60 days. Case 3: A 45-year-old man with chronic renal failure and peripheral vascular disease, presented to the emergency room with 4 days of right chest pain, fever, and dark sputum, indicating septic shock. Chest X-ray revealed right pneumonia. Within hours of ICU admission, a necrotic plaque appeared on the right pectoral region. Thoracic CT showed NF. Urgent surgical debridement removed necrotic tissue from the right para-sternal region to the posterior axillary line. Microbiology identified *Streptococcus pyogenes* multisensitive. Despite initial

recovery, the patient succumbed to vascular complications 4 months later.



Discussion: Necrotizing fasciitis is an infection with high morbimortality. It requires high diagnostic suspicion and early treatment based on broad-spectrum antibiotics, management of septic *shock* and early surgical debridement. Multidisciplinary management is crucial to improve survival and quality of life for these patients.